

**REMARKS**

Claims 1-24 have been examined. Claims 1, 6, 10-11, and 16 have been amended. Claims 2-5, 9, and 22-24 have been canceled. Claims 25-28 have been newly added. Reconsideration of the claims, as amended, is respectfully requested.

**Claim Rejections - 35 U.S.C. §102**

Claims 1, 6, and 10-21 have been rejected under 35 U.S.C. §102(b) as being anticipated by Boe. This rejection is respectfully traversed.

As presently pending, independent claim 1 recites a data management system for identifying patterns in data related to an item. This system includes a construct repository that provides construct pair reference sets. Each construct pair reference set comprises at least a first descriptive term and second descriptive term selected according to personal construct theory to represent contrasting opinions pertaining to an aspect of the item. Claim 1 further recites a graphical user interface configured to display a user-selectable control related to a given construct pair reference and further configured to receive a user's opinion about that aspect of the item selected between the first descriptive term and the second descriptive term. Claim 1 additionally recites an analysis engine that analyzes relationships among user opinions received for construct pair reference sets using a statistically-based process to generate a recommendation for the user related to the item.

Claim 1 pertains to aspects of construct elicitation and personal construct theory. As described in the specification (*see, e.g.*, page 5, lines 19 – page 7, line 29 and page 16, line 14- page 20, line 15), personal construct theory seeks to capture individual perceptions of particular issues and the world in general in order to predict behavior. The psychology of personal construct theory considers that users will express views that pertain to things and rank their personal perception of those things along a bipolar range  $A \rightarrow B$ , A and B being a linguistic pair.

So, for example, assume a set of construct pair reference sets, such as those recited in claim 1, designed for the purpose of determining a user's perceptions related to

personal computers. The construct pair reference set would include aspects of this item, such as, for example, the user's perception of its reliability, the user's perception of whether it was locally made or imported, and the user's perception of whether the item was appropriately priced. For example:

TABLE 8 Rankings from Construct Elicitation

Elements → ↓↓ Construct Pole	Compaq	Dell	Time	Construct Pole
Unreliable	72	40	32	Well-made
Imported	50	35	20	Made in Britain
Value-for-Money	68	42	25	Expensive

As disclosed in Table 8 (see, page 20), these aspects may be placed in a matrix that is then used to obtain a user's opinions (rankings) about these aspects of personal computers. Once this data has been collected, then it can be analyzed to detect patterns in the data using a statistically-based process, such as fuzzy entailment, to generate a recommendation for the user related to the item.

In contrast, the Boe patent describes a system which allows users to adjust sliders associated with demographic data to see what products or services might be interesting for them in "what if" scenarios. Nowhere in the Boe patent is there any mention of permitting a user to enter one or more constructs as set forth in Claim 1. The examiner cites Col. 1, lines 58-67 and Col. 4, lines 25-60 as disclosing construct theory. However, in these passages, Boe discloses a survey system and associated demographics that essentially matches a user's product preferences with available product inventories. Boe does not disclose selecting construct pair reference sets comprised of contrasting descriptive terms pertaining to aspects of an item, and Boe especially does not disclose that these contrasting descriptive terms have been selected according to personal construct theory.

Additionally, Boe does not appear to disclose using statistical processes to analyze the data that he collects from a given user against other data collected directly from that same user in order to detect patterns in the user's opinions. Boe appears to confine his statistical analysis to data collected from a given user in comparison with data collected from other users.

Thus, claim 1 is distinguishable over Boe due to, among other things, the use of construct pair reference sets in a data management system for identifying patterns in data and an analysis engine configured to examine data received from a user against other data received from a user in order to generated a recommendation for the user. Hence, claim 1 as amended is distinguishable over Boe and in condition for allowance.

Claims 6-8 and claims 10-21 depend from claim 1 and are distinguishable for at least the same reasons. Hence, it is respectfully requested that the § 102 rejection of these claims be withdrawn as well.

Newly added Claim 25 recites, among other things, a process for performing fuzzy entailment. In the previous office action, the Examiner stated that Boe disclosed a process of fuzzy entailment at Col. 2, lines 60-Col. 3, lines 42. In these passages, Boe discloses a survey system that collects customer demographic data and then compares this data with demographic data pertaining to other customers. Among other things, Boe does not appear to disclose using a statistical process to compare customer responses to other responses from the same customer. Boe's engine would not seem to have anything to do with semantic inference, psychological profiling, or be based on any known, validated psychological theory.

Newly added Claim 26 recites, among other things, a process for analyzing a user's behavior in response to a recommendation derived from analysis of the user's construct pair reference sets and then using this analysis to improve the accuracy of the statistical process used to provide the original recommendation. For reasons similar to those already discussed, Boe appears to have no disclosure pertinent to Claim 26.

### **CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Appl. No. 10/803,520  
Amdt. dated October 16, 2007  
Reply to Office Action of April 19, 2007

PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

/darin j gibby/  
Darin J. Gibby  
Reg. No. 38,464

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, Eighth Floor  
San Francisco, California 94111-3834  
Tel: 303-571-4000  
Fax: 415-576-0300  
DJG/cl  
61181193 v1